

SECTION II: REMARKS

A. Summary of Amendments

By the present amendment, claims 1, 7, 17, 18, and 23 have been amended, and new claim 24 has been added. Claims 2, 10, and 21 were cancelled previously. The amendments to claim 1 are supported by the originally-filed specification, for example, at pages 5-6 (display; processor). The amendments to claim 7 are supported by the originally-filed specification, for example, at pages 5-6 (processor, memory) and FIG. 1 and related text. Claim 17 has been amended to eliminate means-function language; various elements of such claim are supported by FIG. 1 and related text. Claim 18 has been amended to add the conjunctive term “and” between recitations of the memory clause and the processor clause. Claim 23 has been amended in the preamble thereof to clarify that the term “comprising” modifies “article” rather than “user.” New claim 24 is supported by the originally-filed specification, for example, at FIG. 1 and related text.

No new matter within the meaning of 35 U.S.C. 132(a) has been introduced by the foregoing amendments.

B. Response to Claim Rejections Under 35 U.S.C. 101

In the May 1, 2009 Office Action, claims 1, 3-9, 11-13 were rejected under 35 U.S.C. 101 on the basis that such claims are directed to non-statutory subject matter, “because the steps are neither tied to a particular machine or apparatus nor transforms a particular article to a different state or thing¹.”

In response to the foregoing rejections, independent claims 1 and 7 have been amended herewith.

Amended claim 1 recites, *inter alia*, “displaying the recommendation score to the target user on a set-top-terminal-compatible display or computer-compatible display; wherein said partitioning of a third party selection history into a plurality of clusters, and

¹ May 1, 2009 Office Action, pages 2-3.

said processing of the modified target user's history to generate a target user profile, are performed with a computerized data processor." Recitation of the display and computerized data processor elements introduce sufficient structure to *both* tie the steps to a particular machine or apparatus (namely, the display and computerized data processor) *and* transform a particular article to a different state or thing (e.g., via the display).

Amended claim 7 recites, *inter alia*, "partitioning a third party selection history into a plurality of clusters by the computerized data processor, ... updating said user profile using said selected clusters by the computerized data processor; [and] storing the updated user profile in a memory." Recitation of the computerized data processor element and memory elements introduce sufficient structure to *both* tie the steps to a particular machine or apparatus (namely, the computerized data processor and memory) *and* transform a particular article to a different state or thing (e.g., via the memory).

Based on the foregoing amendments to independent claims 1 and 7, withdrawal of the rejections of these claims under 35 U.S.C. 101 is warranted, and is respectfully requested. Moreover, since dependent claims inherently include all the features of the claims on which they depend², withdrawal of the rejections of claims depending (whether directly or indirectly) from claims 1 and 7 is warranted, and respectfully requested, for the same reasons articulated with respect to claims 1 and 7.

C. Response to Claim Rejections Under 35 U.S.C. 102(b)

In the May 1, 2009 Office Action, claims 1, 3-9, and 11-23 were rejected under 35 U.S.C. 102(b) as allegedly being anticipated by U.S. Patent No. 5,758,257 to Herz, et al. ("Herz"). Such rejections are traversed.

1. The Examiner Has Improperly Ignored the Board's Findings of Fact in the January 15, 2009 Decision on Appeal

² 35 U.S.C. 112, fourth paragraph.

In the January 15, 2009 Decision on Appeal, the Board of Patent Appeals and Interferences (“the Board”) made several clear findings of fact with respect to Issue 2 on appeal – namely, the rejection of claims 1 and 3-23 under 35 U.S.C. 102(b) as being anticipated by Herz. The Board’s finding of fact number 6 is reproduced below:

“6. Herz fails to disclose modifying a target user's history of selecting said one or more available items with one or more third party clusters to produce a modified target user's history; processing the modified target user's history to generate a target user profile, wherein the modified target user's history characterizes preferences of the target user as modified to reflect preferences of the third party.”

The Board’s finding in this regard is not limited to any specific portion of Herz.

In the May 1, 2009 Office Action, the examiner appears to be ignoring and contradicting the foregoing express finding of fact by the Board, in continuing to allege that Herz does disclose these features of Applicant’s claims.

Withdrawal of the rejections under 35 U.S.C. 102 (e.g., of claims 1, 14, 17, 22, and 23, and the claims depending therefrom) premised on the examiner’s contradiction of the foregoing factual findings of the Board is warranted, and is respectfully requested.

2. Herz Fails to Disclose All Elements of Applicant’s Independent Claims 1, 14, 17, 22, and 23 and the Claims Depending Therefrom

Claim 1 as amended herewith recites:

1. A computerized method performed by a data processor for recommending one or more available items to a target user, comprising the steps of:
 - obtaining a history of selecting one or more available items by at least one third party;
 - partitioning a third party selection history into a plurality of clusters, wherein each cluster contains items that are closer to the mean of the cluster than any other cluster from among the plurality of clusters,
 - modifying a target user's history of selecting said one or more available items with one or more third party clusters to produce a modified target user's history;

processing the modified target user's history to generate a target user profile, wherein the modified target user's history characterizes preferences of the target user as modified to reflect preferences of the third party;
generating a recommendation score for at least one of said available items based on said target user's profile; and
displaying the recommendation score to the target user on a set-top-terminal-compatible display or computer-compatible display;
wherein said partitioning of a third party selection history into a plurality of clusters, and said processing of the modified target user's history to generate a target user profile, are performed with a computerized data processor.

Independent claims 14, 17, 22, and 23 recite various elements consistent with the elements of the foregoing independent claim 1. The following discussion of claim 1 applies equally to independent claims 14, 17, 22, and 23 for all features similarly presented in those independent claims.

a. *Herz Fails to Disclose "Partitioning a Third Party Selection History Into a Plurality of Clusters"*

At page 3 of the May 1, 2009 Office Action, the examiner adopts a construction of the term "partitioning" in claim 1³ supported by the allegation that "[a]ccording to Applicant's specification (see Applicant's specification page 7, lines 16-20⁴), a partition is equivalent to a cluster." Such allegation is not correct. The word "partitioning" in claim 1 should be considered in the context of the surrounding words of the claim, as the claims themselves provide substantial guidance as to the meaning of particular claim terms⁵. Claim 1 recites, *inter alia*, "partitioning a third party selection history into a plurality of clusters." The context of the language in claim 1 suggests that use of both words in the same sentence implies different meanings to avoid redundancy and indefiniteness. Another difference between "partitioning" and "cluster" in claim 1 is that "partitioning" is a verb, whereas "cluster" is a noun. Moreover, the act of partitioning a

³ And similarly recited in independent claims 14, 17, 22, and 23.

⁴ "The clustering process 500 partitions the third party viewing history 130 (the data set) into clusters, such that points (television programs) in one cluster are closer to the mean (centroid) of that cluster than any other cluster."

⁵ Philips v. AWH Corp., 415 F.3d 1303, 75 USPQ2d 1321 (Fed. Cir. 2005) (*en banc*); ACTV, Inc. v. Walt Disney Co., 346 F.3d 1082, 1088 (Fed. Cir. 2003). ;

singular “third party selection history” into a multitude or plurality of clusters demonstrates that “partitioning” in claim 1 refers to an act of separation or division.

“Clustering” as utilized by Herz refers in each instance to grouping or aggregating things, not the *opposite* act of separating or dividing things. Clustering is also commonly understood to mean the act of combining or aggregating⁶. At page 3 of the May 1, 2009 Office Action, the examiner points to col. 38, lines 1-55 of Herz as “teach[ing] clustering (i.e., partitioning) the profiles of third party persons viewing history” Col. 38, lines 13-17 state: “if one has a list of people who have watched a movie or show, one can determine a content profile for that movie or show by **clustering the profiles of the customers** and selecting the profile cluster containing the most customers.” See also Herz, col. 38, line 56, stating that “[o]nce customers have been **clustered into groups**, the effective popularity of movies or shows for the cluster can be determined” The foregoing passages are consistent with Herz’ use of “clustering” to refer to “combining” or “aggregating,” rather than “partitioning” as alleged by the examiner.

Based on the foregoing, “partitioning” as used in Applicant’s claim 1 is not equivalent to “clustering” as disclosed by Herz, and “a partition is not equivalent to a cluster” as alleged by the examiner. Accordingly, Herz does not disclose or suggest “partitioning a third party selection history into a plurality of clusters” as required by Applicant’s claim 1, and similarly recited in Applicant’s independent claims 14, 17, 22, and 23.

b. Herz Fails to Disclose “Modifying a Target User’s History of Selecting Said One or More Available Items With One or More Third Party Clusters to Produce a Modified Target User’s History”

At page 4 of the May 1, 2009 Office Action, the examiner alleges that the “agreement matrix” disclosed at col. 39, lines 50-55 of Herz constitutes a modified target user’s history, specifically alleging that “the modified viewer history of customer 2 is based upon the viewing history of customer 1.” While Applicant agrees that Herz

⁶ “cluster.” (2009). In Merriam-Webster Online Dictionary. Retrieved July 30, 2009, from <http://www.merriam-webster.com/dictionary/cluster>. (Copy attached hereto as Exhibit A.)

discloses a “viewing history” for different users at column 39, lines 23-36, Applicant does not agree with the examiner’s characterization that Herz’s “agreement matrix” is equivalent to a “modified target user’s history” within the meaning of Applicant’s claim 1, or that Herz discloses production of a modified target user’s history.

Herz states that an agreement matrix “characterize[es] the attractiveness of each available source of video programming or data to each customer⁷” and that an agreement matrix “provides measurements of the similarity between the customer profiles and the content profiles⁸.” Herz further states that “customer preferences cannot be characterized by a single agreement matrix ... [a]lso, customers may have different agreement matrices depending on their mood⁹.” The latter statement in particular makes clear that “agreement matrix” is not synonymous with “modified target user’s history” (as proffered by the examiner), since a “user history” would not be expected to vary with variations in a customer’s mood (i.e., unlike an agreement matrix). In other words, a “history” associated with a target user would be expected to be unique as representing a documented account of the past, rather than subject to change upon alteration of mood of the target user.

It is further noted that the detailed description of Herz is organized with various section headings, with the section heading “D. Creating Initial Profiles From Clusters¹⁰” applying to the text of Herz from col. 37, line 50 to col. 40, line 20 (thus encompassing the passage at Herz col. 39, lines 50-55 relied upon by the examiner as allegedly disclosing “modifying a target user’s history of selecting said one or more available items with one or more third party clusters to produce a modified target user’s history¹¹” within the meaning of Applicant’s claims). A review of Herz from col. 37, line 50 to col. 40, line 2 reveals that the entire passage refers not to modification of an existing profile, but rather to creation of an initial customer profile, as evidenced by the following excerpts:

“D. Creating Initial Profiles From Clusters

⁷ Herz, col. 4, lines 21-22.

⁸ Herz, col. 19, lines 7-8.

⁹ Herz, col. 29, lines 9-12.

¹⁰ Herz, col. 37, line 49.

¹¹ May 1, 2009 Office Action, page 4.

... [T]here are several methods for **determining initial customer and content profiles.**

* * *

Intuitively, the **customer profiles of new customers** should look like the content profiles of the movies and/or shows they watch, and the content profiles of new movies should look like the customer profiles of the customers who watch those movies. If each customer has a single customer profile, the method for determining the customer profile is simple: one simply finds the centroid of the content profiles of all the movies and/or shows watched by the customer. However, since each customer may have multiple customer profiles, only one of which is expected to match each movie or show, the movies watched by a customer must be clustered into groups for selection of the centroid (average) of each group. Similarly, if one has a list of people who have watched a movie or show, one can determine a content profile for that movie or show by clustering the profiles of the customers and selecting the profile cluster containing the most customers.

By using clustering techniques, **one can also determine an initial customer profile even if no history of the customer's preferences is available.** In particular, by clustering customers based on demographic or psychographic data, **new customers may be assigned customer profiles typical of customers with similar demographics or psychographics.** On the other hand, when no characteristics are known for movies or customers, an agreement matrix indicating which movies each customer is likely to watch may be computed from a record of which movies each customer has already watched. As described above, this agreement matrix can be used for selecting a set of virtual channels for each customer, for scheduling movies for delivery over a cable or equivalent transmission system, and for making movie rental or other rental or purchase recommendations at a kiosk or personal computer (described below). The key to generating the agreement matrix using this approach is the observation that if two people have liked many of the same movies or shows in the past, then they are likely to continue to like similar movies or shows. More precisely, if a person "A" has seen and liked many movies or shows which a second person "B" has seen and liked, then "A" is likely to like other movies or shows which "B" liked. The method set forth below generalizes this concept to multiple customers.

* * *

Once the customers have been clustered into groups, the effective popularity of movies or shows for the cluster can be determined by counting the total number of times each movie or show was watched. An agreement matrix between the customers and movies or shows may be constructed based on these clusters by assigning each customer the agreements ("effective popularity") of the movies or shows for the cluster that the customer is in, where all members of a group have the same

agreement.

In particular, a technique for creating **initial profiles** from cluster data includes the steps of:

- (1) picking the number of desired groups, K;
- (2) using the k-means algorithm to group the customers into K groups ...
and
- (3) determining the agreement matrix elements ...

As an example of this technique, assume the following viewing history
....

[TABLE OMITTED]

[Mathematical operations described.] The resulting agreement matrix is thus:

[TABLE OMITTED]

In a broadcast/cable application of the type described herein, it may be desirable to construct different agreement matrices of this type for different times of day or days of the week¹²."

As the foregoing excerpts from Herz are expressly directed to **creation of initial profiles** for new users, **not modification of a target user's pre-existing history**, the examiner's reliance on Herz col. 39, lines 45-55 is misplaced. Herz fails to disclose "modifying a target user's history of selecting said one or more available items with one or more third party clusters to produce a modified target user's history" as recited in Applicant's independent claim 1, and similarly recited in independent claims 14, 17, 22, and 23.

c. Herz Fails to Disclose "Processing the Modified Target User's History to Generate a Target User Profile, Wherein the Modified Target User's History Characterizes Preferences of the Target User as Modified to Reflect Preferences of the Third Party"

At page 4 of the May 1, 2009 Office Action, the examiner points to Herz col. 40, lines 35-65 as disclosing "processing the modified target user's history to generate a target user profile, wherein the modified target user's history characterizes preferences of

¹² Herz, col. 37, line 49 – col. 39, line 59 (emphasis added).

the target user as modified to reflect preferences of the third party.” In particular, the examiner alleges that “Herz uses the created modified customer’s viewing history (see col. 39, lines 50-55) in order to suggest programming for “virtual channels” to select the most desired programming for the customers¹³.”

As indicated previously herein, col. 39, lines 50-55 of Herz discloses an “agreement matrix” used for creating initial user profiles, not a “modified target user’s history” as alleged by the examiner. This represents a first deficiency in the examiner’s comparison of Herz to the “processing” step of claim 1.

A second deficiency in the examiner’s comparison of Herz to the “processing” step of claim 1 is that the examiner appears to be ignoring the step of “generat[ing] a target user profile.” In effect, the examiner alleges that Herz uses the agreement matrix to select desired programming – but selecting desired programming does not constitute “generat[ing] a target user profile” within the meaning of Applicant’s independent claim 1, and similarly recited in independent claims 14, 17, 22, and 23.

In the January 15, 2009 Decision on Appeal at page 11 thereof, the Board correctly stated that “[t]he viewing history and profile are not synonymous as the Examiner suggests, because then the limitation of ‘processing the modified target user’s history to generate a target user profile’ could not be met.” The Board further stated at page 11 that “this distinction ... is sufficient to distinguish the claimed invention from Herz under 35 U.S.C. 102(b).” The foregoing statements of the Board clearly demonstrate the impropriety of the present rejection of claim 1, and similarly the rejections of independent claims 14, 17, 22, and 23.

d. Herz Fails to Disclose “Displaying the Recommendation Score to the Target User”

At page 4 of the May 1, 2009 Office Action, the examiner points to Herz col. 49, lines 1-20 as allegedly disclosing the feature of “displaying the recommendation score to the target user on a display.” Applicant respectfully disagrees with such allegation, as nothing in the cited passage (or in any other portion of Herz) discloses display of any

¹³ May 1, 2009 Office Action, page 4.

“recommendation score” within the meaning of Applicant’s claims. Herz col. 49, lines 1-20 are reproduced below for the examiner’s convenience.

“Similarly, each customer could adopt the customer profiles of other individuals or programs such as “celebrity” profiles including the viewing preferences of different celebrities. However, such “celebrity” profiles must not be updated through passive feedback as described herein and should remain unchanged.

Also, since there is usually more than one television viewer in a household, it may be desirable to keep multiple clusters of preferences for one television. Those skilled in the art will appreciate that this may be handled in a manner similar to the different moods described above. For example, the customer profiles of two or more customers may be combined, with equal or unequal weightings, so that the video programming with content profiles strictly within the overlap area of the combined customer profiles will be preferred. In this manner, customers such as a husband and wife with very different preferences may be presented video programming options which are mutually agreeable.

Also, the techniques described above may be used to create a virtual channel for video previews whereby previews of movies and the like available in an on-demand system, for example, may be presented to customers in a personalized manner.”

Applicant is unable to discern any disclosure or suggestion of any recommendation score in the foregoing passage, let alone display of such a score to a user. This provides yet another basis for withdrawal of the anticipation rejection of Applicant’s claim 1.

Based on the foregoing, withdrawal of the rejections of independent claims 1, 14, 17, 22, and 23 under 35 U.S.C. 102(b) is warranted, and is respectfully requested. Moreover, since dependent claims inherently include all the features of the claims on which they depend¹⁴, withdrawal of the rejections of claims depending (whether directly or indirectly) from claims 1, 14, 17, 22, and/or 23 is warranted, and respectfully requested, for at least the same reasons articulated with respect to claims 1, 14, 17, 22, and 23.

¹⁴ 35 U.S.C. 112, fourth paragraph.

3. Herz Fails to Disclose All Elements of Applicant's Independent Claims 7 and 18 and the Claims Depending Therefrom

Claim 1 as amended herewith recites:

7. A computerized method performed by a computerized data processor for maintaining a user profile indicating preferences of a user, comprising the steps of:
partitioning a third party selection history into a plurality of clusters by the computerized data processor, wherein each cluster contains items that are closer to the mean of the cluster than any other cluster among the plurality of clusters;
receiving a selection from said user of at least one of said clusters of similar items; and
updating said user profile using said selected clusters by the computerized data processor;
storing the updated user profile in a memory;
wherein said step of updating said user profile further comprises the steps of updating a selection history of said user with items from said selected clusters and updating said user profile using said updated selection history.

Independent claim 18 recites various elements consistent with the elements of the foregoing independent claim 7. The following discussion of claim 7 applies equally to independent claim 18 for all features similarly presented therein.

a. Herz Fails to Disclose "Partitioning a Third Party Selection History Into a Plurality of Clusters"

At page 5 of the May 1, 2009 Office Action, the examiner alleges that Herz discloses "partitioning a third party selection history into a plurality of clusters ... wherein each cluster comprises a segment of tangible items that exhibit a characteristic similarity" Such allegation is not correct. The word "partitioning" in claim y should be considered in the context of the surrounding words of the claim, as the claims themselves provide substantial guidance as to the meaning of particular claim terms¹⁵. Claim 7 recites, *inter alia*, "partitioning a third party selection history into a plurality of

¹⁵ Philips v. AWH Corp., 415 F.3d 1303, 75 USPQ2d 1321 (Fed. Cir. 2005) (*en banc*); ACTV, Inc. v. Walt Disney Co., 346, F.3d 1082, 1088 (Fed. Cir. 2003). ;

clusters.” The context of the language in claim 7 suggests that use of both words in the same sentence implies different meanings to avoid redundancy and indefiniteness. Moreover, the act of partitioning a singular “third party selection history” into a multitude or plurality of clusters demonstrates that “partitioning” in claim 7 refers to an act of separation or division.

“Clustering” as utilized by Herz refers in each instance to grouping or aggregating things, not the *opposite* act of separating or dividing things. Clustering is also commonly understood to mean the act of combining or aggregating¹⁶. At page 5 of the May 1, 2009 Office Action, the examiner points to col. 34, lines 57-60 and col. 38, lines 1-55 of Herz as disclosing Applicant’s partitioning step. Yet Herz col. 38, lines 13-17 state: “if one has a list of people who have watched a movie or show, one can determine a content profile for that movie or show by **clustering the profiles of the customers** and selecting the profile cluster containing the most customers.” See also Herz, col. 38, line 56, stating that “[o]nce customers have been **clustered into groups**, the effective popularity of movies or shows for the cluster can be determined” The foregoing passages are consistent with Herz’ use of “clustering” to refer to “combining” or “aggregating,” rather than “partitioning” as alleged by the examiner.

Based on the foregoing, “partitioning” as used in Applicant’s claim 7 is not equivalent to “clustering” as disclosed by Herz, and “a partition is not equivalent to a cluster” as alleged by the examiner¹⁷. Accordingly, Herz does not disclose or suggest “partitioning a third party selection history into a plurality of clusters” as required by Applicant’s claim 7, and similarly required by Applicant’s claim 18.

b. Herz Fails to Disclose the “Step of Updating Said User Profile Further Comprises the Steps of Updating a Selection History of Said User With Items From Said Selected Clusters and Updating Said User Profile Using Said Updated Selection History”

At page 6 of the May 1, 2009 Office Action, the examiner alleges that Herz discloses at col. 39, lines 45-55 thereof the feature of “updating said user profile ...

¹⁶ “cluster.” (2009). In Merriam-Webster Online Dictionary. Retrieved July 30, 2009, from <http://www.merriam-webster.com/dictionary/cluster>. (Copy attached hereto as Exhibit A.)

¹⁷ May 1, 2009 Office Action, page 3.

compris[ing] the steps of updating a selection history of said user with items from said selected clusters and updating said user profile using said updated selection history.” In particular, the examiner alleges that “Herz creates an agreement matrix that is based upon customer’s viewing history where for example, in col. 39, lines 50-55, the modified viewer history of customer 2 is based upon the viewing history of customer 1.”

It has been previously demonstrated herein (i.e., in connection with Applicant’s traversal of the rejection independent claim 1) that Herz’s “agreement matrix” does not constitute a modified target user’s history. Such arguments are incorporated by reference with respect to claim 7. By analogy, Herz’s agreement matrix similarly does not constitute an “updated selection history” within the meaning of claim 7. Herz states that states that **“customer preferences cannot be characterized by a single agreement matrix ... [a]lso, customers may have different agreement matrices depending on their mood¹⁸.”** This statement makes clear that “agreement matrix” is not synonymous with “updated selection history” (as proffered by the examiner), since a “selection history” would not be expected to vary with variations in a customer’s mood (i.e., unlike an agreement matrix). Moreover, the passage of Herz at col. 39, lines 50-55 relied upon by the examiner refers not to modification of an existing profile, but rather to creation of an initial customer profile. This further demonstrates the failure of Herz to disclose a updating of a selection history, as required by claim 7, and similarly required by claim 18.

As indicated previously herein, col. 39, lines 50-55 of Herz discloses an “agreement matrix” used for creating initial user profiles, not an “updated selection history” as alleged by the examiner. Moreover, the examiner appears to be ignoring the step of “updating said user profile.” The examiner alleges that Herz creates an agreement matrix based on viewing history of customers, but fails to demonstrate any support in Herz for “updating a selection history of said user with items from said selected clusters and updating said user profile using said updated selection history” as recited in Applicant’s independent claim 7, and similarly required by independent claim 18.

¹⁸ Herz, col. 29, lines 9-12.

Based on the foregoing, withdrawal of the rejections of independent claims 7 and 18 under 35 U.S.C. 102(b) is warranted, and is respectfully requested. Moreover, since dependent claims inherently include all the features of the claims on which they depend¹⁹, withdrawal of the rejections of claims depending (whether directly or indirectly) from claims 7 and 18 is warranted, and is respectfully requested, for at least the same reasons articulated with respect to claims 7 and 18.

D. (No) Excess Claim Fees Due and Payable

By the present amendment, one dependent claim has been added. No excess claim fees are due and payable herewith, as the number of total claims does not exceed the number for which fees have been previously paid.

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¹⁹ 35 U.S.C. 112, fourth paragraph.

CONCLUSION

In light of the foregoing, Applicants respectfully submit that all of the now-pending claims are in condition for allowance. Examination of the enclosed claims and issuance of a notice of allowance are earnestly solicited. Should any issues remain that may be amenable to telephonic resolution, the examiner is invited to telephone the undersigned attorneys to resolve such issues as expeditiously as possible.

In the event there are any errors with respect to the fees for this response or any other papers related to this response, the Director is hereby given permission to charge any shortages and credit any overcharges of any fees required for this submission to Deposit Account No. 14-1270.

Respectfully submitted,

By: /vincent k. gustafson/
Vincent K. Gustafson
Registration No.: 46,182

Dated: July 30, 2009

INTELLECTUAL PROPERTY/
TECHNOLOGY LAW
P.O. Box 14329
Research Triangle Park, NC 27709
Phone: 919-419-9350

For: Kevin C. Ecker
Registration No.: 43,600
Phone: (914) 333-9618

Please direct all correspondence to:
Kevin C. Ecker, Esq.
Philips Intellectual Property & Standards
P.O. Box 3001
Briarcliff Manor, NY 10510-8001

EXHIBIT A



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cluster

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¹cluster (noun)

²cluster (verb)

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Main Entry: **'clus-ter**

Pronunciation: \ˈklʌs-tər\

Function: *noun*

Etymology: Middle English, from Old English *clyster*; akin to Old English *clott*
clot

Date: before 12th century

: a number of similar things that occur together: as **a** : two or more consecutive consonants or vowels in a segment of speech **b** : a group of buildings and especially houses built close together on a sizable tract in order to preserve open spaces larger than the individual yard for common recreation **c** : an aggregation of stars or galaxies that appear close together in the sky and are gravitationally associated **d** : a larger than expected number of cases of disease (as leukemia) occurring in a particular locality, group of people, or period of time

— **clus-ter-y** \-t(ə-)rē\ *adjective*

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